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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,242	12/07/2004	Mitsuaki Morimoto	62538 (70551)	3118

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EXAMINER	
FERGUSON, MARISSA L	

ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/517,242	MORIMOTO ET AL.	
	Examiner	Art Unit	
	Marissa L. Ferguson-Samreth	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2004* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner does not understand the phrase "nearly-triangular".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 9 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856).

Regarding claims 1 and 11, Herr teaches a method and apparatus comprising a raised part that is formed to extend linearly in plan view (Figures 1 and 3), a raised part that has at least one groove formed on its printing surface (elements 13 and 14) and a plurality of grooves that are formed to pass through from one side to another side of the

raised part (Figures 1 and 3). Herr does not explicitly disclose a raised part shaped as a rectangular frame in plan view.

Davis et al. teaches a letterpress plate (12) attached to a cylindrical print roll (14) with rectangular raised portions (121 and Figure 3A). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr to replace the plate thereof with a plate with rectangular raised portions as taught by Davis et al., since Davis et al. teaches that it is advantageous to provide an aesthetically pleasing image on the surface of a plate.

Regarding claim 3, Herr teaches an apparatus wherein a plurality of the grooves extend in one direction and parallel to each other and are equally spaced apart (Figures 1, 3 and 4).

Regarding claim 9, Herr teaches a press comprising a printing plate (Page 1, Lines 86-93).

3. Claims 2, 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856) as applied to claims 1 and 11 above, and further in view of Dreher et al. (US Publication 2004/0126682).

Herr in view of Davis et al. teaches the claimed invention with the exception of wherein a groove has a nearly-triangular cross section, a flexographic press with a printing plate wherein th groove has a width along the printing surface of said raised part not less than 20 μm and not more than 60 μm, a depth not less than 25 μm and not more than 75 μm, and a distance between the grooves of not less than 20 μm and not

more than 60 μm. Dreher et al. teaches a press (12) with a flexographic printing plate with relief grooves with heights/depth varying of 5μm to 30 μm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al. to include the grooves with different heights/depth as taught by Dreher et al., since Dreher et al. teaches that it is advantageous to provide an easier method of obtaining optimizing high print quality.

Dreher et al. does not teach varying the width and/or distance between the grooves. However, it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Geisler, 43 USPQ 1362. It would have been obvious to have the claimed width and distance variations of the grooves since such a modification would result in regulating the amount of ink transferred during printing thereby providing good print quality.

Regarding claims 5 and 6, Herr in view of Davis et al. teaches the claimed method and apparatus with the exception of wherein a side of the near-rectangle frame is parallel to a longitudinal direction of said groove, a raised part that is provided such that the side of the frame is in a slanting direction relative to a moving direction of said printing plate and wherein the side of the near-rectangle and a longitudinal direction of said groove form an angle of approximately 45°. Dreher et al. teaches frame that is parallel to a longitudinal direction of the relief grooves, a slanting side of the near-rectangular frame (Refer to figure 1 on page 5). It would have been obvious to one

having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herrin view of Davis et al. to replace frame thereof with a frame with a slanting side as taught by Dreher et al., since Dreher et al. teaches that it is advantageous to prevent any air spacing that may disrupt the print quality.

With regards to the side of the frame and longitudinal direction of the grooves forming a 45°, Dreher et al. teaches some type of angle, however the degree of the angle is not disclosed. However, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). It would have been obvious to have the claimed angle, since such a modification would result in providing good quality print.

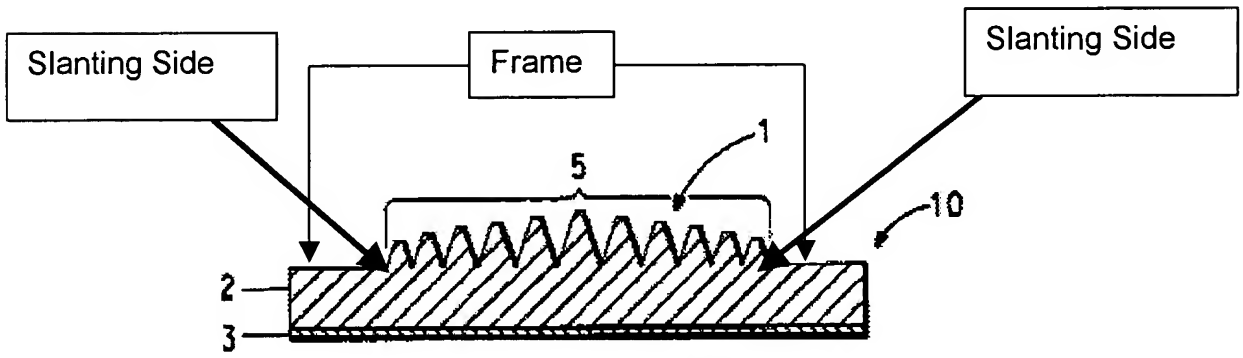

FIG. 1

Regarding claim 7, Herr in view of Davis et al. teaches the claimed method and apparatus with the exception of wherein a moving direction of a printing plate is substantially perpendicular to the longitudinal direction of the groove. Dreher teaches moving a printing plate in a direction perpendicular to the grooves as shown in figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al. to include a printing plate that is perpendicular to the longitudinal direction of the groove as taught by Dreher et al., since Dreher et al. teaches that it is advantageous to allow a smooth transition and compression of the relief elements.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856) and Dreher et al. (US Publication 2004/0126682) as applied to claim 1 above, and further in view of Noboru (JP 2001-171066).

Herr in view of Davis et al. and Dreher et al. teaches an apparatus with the exception of wherein a moving direction of a printing plate is substantially parallel to the longitudinal direction of the groove. Noboru teaches a relief printing plate with raised portions (elements 10 and 11 form relief element 12) and wherein the moving direction of the plate is parallel to the direction of the grooves (Figure 4a). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al. and Dreher to include a printing plate that is parallel to the longitudinal direction of the groove as taught by

Noboru, since Noboru teaches that it is advantageous to allow a smooth transition by upgrading printing accuracy by preventing ink from oozing out of a colored region.

5. Claims 10, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856) as applied to claim 1 above, and further in view of Nakayama (JP 11-183918).

Herr in view of Davies et al. teaches the claimed invention with the exception of manufacturing a liquid crystal device comprising a printing plate and a sealing material wherein the sealing material is a sealing material for a flat panel display. Nakayama teaches a method of manufacturing a LCD with a sealing material (6) that is formed in a display area (Abstract and Solution). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al. to include a sealing material in a LCD as taught by Nakayama, since Nakayama teaches that it is advantageous to provide a material with excellent strength and flexibility thereby preventing the degradation of the film.

6. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856) and Nakayama (JP 11-183918) as applied to claim 13 above, and further in view of Dreher et al. (US Publication 2004/0126682).

Herr in view of Davis et al. and Nakayama all teach the claimed method and apparatus with the exception of a flexographic press with a printing plate wherein said groove has a width along the printing surface of said raised part not less than 20 μm and not more than 60 μm, a depth not less than 25 μm and not more than 75 μm, and a distance between the grooves of not less than 20 μm and not more than 60 μm, a longitudinal direction of the grooves forming a 45° and moving a printing plate in a direction perpendicular to the groove . Dreher et al. teaches a press (12) with a flexographic printing plate with relief grooves with heights/depth varying of 5μm to 30 μm and a plate moving in a direction perpendicular to the grooves (Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al. and Nakayama to include the grooves with different heights/depth as taught by Dreher et al., since Dreher et al. teaches that it is advantageous to provide an easier method of obtaining optimizing high print quality.

Dreher et al. does not teach varying the width and/or distance between the grooves. However, it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Geisler, 43 USPQ 1362***. It would have been obvious to have the claimed width and distance variations of the grooves since such a modification would result in regulating the amount of ink transferred during printing thereby providing good print quality.

With regards to the side of the frame and longitudinal direction of the grooves forming a 45°, Dreher et al. teaches some type of angle, however the degree of the angle is not disclosed. However, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. ***In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980)***. It would have been obvious to have the claimed angle, since such a modification would result in providing good quality print.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view Herr (US Patent 1, 442, 338) in view of Davis et al. (US Publication 2002/0073856), Nakayama (JP 11-183918) and Dreher et al. (US Publication 2004/0126682) as applied to claim 14, and further in view of Harumoto (JP 2001-171066).

Herr in view of Davis et al., Nakayama, and Dreher et al. all teach the claimed method and apparatus with the exception of a method wherein a moving direction of a printing plate is substantially parallel to the longitudinal direction of the groove. Harumoto teaches a relief printing plate with raised portions (elements 10 and 11 form relief element 12) wherein the moving direction of the plate is parallel to the direction of the grooves (Figure 4a). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Herr in view of Davis et al., Nakayama and Dreher to include a printing plate that is parallel to the longitudinal direction of the groove as taught by Harumoto, since Harumoto teaches that it is advantageous to allow a smooth transition by upgrading printing accuracy by preventing ink from oozing out of a colored region.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson-Samreth whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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